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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/611,780      | 06/30/2003  | Nathan Newman        | 130588.00011        | 1886             |

26707 7590 09/08/2004

QUARLES & BRADY LLP  
RENAISSANCE ONE  
TWO NORTH CENTRAL AVENUE  
PHOENIX, AZ 85004-2391

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| EXAMINER |
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LAM, CATHY FONG FONG

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1775

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |               |  |
|------------------------------|-----------------|---------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |  |
|                              | 10/611,780      | NEWMAN ET AL. |  |
|                              | Examiner        | Art Unit      |  |
|                              | Cathy Lam       | 1775          |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 22-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>Nov. 7 &amp; 10, 2004</u>   | 6) <input type="checkbox"/> Other: ____.                                    |

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-21, drawn to a dielectric material and an electronic device comprising a dielectric substrate, classified in class 257, subclass 310.
  - II. Claims 22-27, drawn to a method of making a ceramic dielectric material, classified in class 205, subclass 538.
  - III. Claims 28-30, drawn to a method of making a thin film dielectric material, classified in class 427, subclass 585.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II, III and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a different process such as by slurry mixing the inorganic compound, the sintering agent and a solvent together, then fire the mixture until at semi-hardened stage, then cut it into desired shape and thickness then sinter until the product is dried. The process as claimed can be used to make a different product such as semiconductor sheet or a printed wiring board substrate.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Atty: Robert Atkins on July 30, 2004 a provisional election was made without traverse to prosecute the invention of group I, claims 1-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 22-30 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

#### ***Claim Objections***

6. Claims 9, 14 and 20 are objected to because of the following informalities: in claims 9 & 14, " $0 < x < 0.333$ " is redundant. In claim 20, "the solid solution" lacks antecedent basis. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

7. Claims 8 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 8 and 13, "M" is not defined.

#### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gangull et al (solid state communications, Vol. 94, No. 1, page 13-16, 1995).

Gangull teaches a dielectric material which is used as dielectric resonators. The dielectric resonator has a silver electrode (see under Experimental). The examiner takes the position that Gangull teaches an electronic device having an electrical terminal (meets claim 10).

The dielectric material is a compound comprised of barium, cadmium and tantalum and further includes zinc or magnesium. The formulae for the dielectric compound is  $\text{Ba}_3\text{Zn}_{1-x}\text{Cd}_x\text{Ta}_2\text{O}_9$ , wherein  $0 \leq x \leq 1$  (see under Results & Discussion). If  $x = 1$ , then the dielectric compound becomes  $\text{Ba}_3\text{CdTa}_2\text{O}_9$  (or  $\text{BaCd}_{0.333}\text{Ta}_{0.667}\text{O}_3$ ), such that the ratio of cadmium is one-third and tantalum is two-thirds.

Gangull clearly teaches the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Cathy Lam  
Primary Examiner  
Art Unit 1775

cfl  
July 28, 2004